

START

0021452

MEETING MINUTES

Subject: Expedited Response Action Weekly Interface

TO: Distribution

BUILDING: 450 Hills

FROM: W. L. Johnson

CHAIRMAN: G. C. Henckel

Dept-Operation-Component	Area	Shift	Meeting Date	Number Attending
Environmental Engineering	3000	Day	June 8, 1992	8

Distribution:

M. R. Adams	H4-55	P. S. Innis	B5-01
P. Beaver	B5-01	R. E. Lerch	B2-35
M. V. Berriochoa	B3-30	R. G. McLeod	A5-19
P. T. Day	B5-01	P. M. Pak	A5-19
H. D. Downey*	L4-92	D. R. Sherwood	B5-01
D. R. Einan*	B5-01	R. K. Stewart*	A5-19
J. K. Erickson*	A5-19	D. D. Teel*	fax
D. A. Faulk*	B5-01	T. M. Wintczak	L4-92
L. Gadbois	B5-01	EDMC	H4-22
D. Goswami*	fax	ERAG Route	
L. Goldstein	fax	WLJ File/LB	
W. F. Heine	B2-35		

*Attendees

The weekly interface meeting on the Expedited Response Actions (ERAs) was held to status the ERAs for the U.S. Department of Energy Field Office, Richland and the regulators. The meeting was conducted in accordance with the attached agenda. Actions were formally reviewed and the attached action item list was updated.

All five projects were discussed and their status summarized. An agreement was reached to remove all drums on the surface at the Sodium Dichromate site prior to finishing the site characterization activities. A description of the CCl_4 production data reporting format was also provided. The data summary sheets for the 316-5 sampling activities were provided for information.

Attachments:

1. Agenda
2. Action Item List
3. Decisions, Agreements & Commitments
4. Expedited Response Action Weekly Report
5. CCl_4 Reporting Format
6. Data Summary Sheets for 316-5 Sampling



WEEKLY ERA INTERFACE AGENDA

SUBJECT: STATUS OF THE EXPEDITED RESPONSE ACTIONS

DATE: June 8, 1992

- GENERAL ISSUES
 - ERA Interface Action Item review
- INDIVIDUAL PROJECT STATUS
 - 618-9 Burial Ground
 - o Waste dispositioning activities
 - scheduled to ship June 11, 1992
 - o Project wrap-up
 - canister issue (procedure being drafted)
 - backfilling trench (complete)
 - 316-5 Process Trenches
 - o Final report review
 - o Data summary tables
 - 200-W Carbon Tetrachloride
 - o Site characterization status
 - o Operations status (GAC canister procurement)
 - o Procurement & design activities for next two units
 - o Integrated demonstration activities
 - North Slope
 - o Project plan (SAP) WHC first draft 6/16/92, safety analysis ongoing, NEPA under development
 - o Removal of physical hazards
 - Sodium Dichromate
 - o Project plan (SAP), safety analysis ongoing, NEPA under development
 - o GPR preps
 - o Removal of debris issue
- OTHER ISSUES
- SUMMARY OF ACTION ITEMS
- SIGN-OFF ON ANY DECISIONS, AGREEMENTS, OR COMMITMENTS

EXPEDITED RESPONSE ACTION INTERFACE MEETING

-ACTION ITEMS-
June 8, 1992

ORGANIZATION

ACTION ITEM

- WHC WHC will issue a press release on the 618-9 Burial Ground ERA within 30 days after the decision is made on how the waste will be dispositioned. (open) *Draft is in preparation.*
- WHC WHC and RL will formally provide EPA and Ecology with a copy of the Integrated Demonstration Site Characterization Plan. (closed) *Copy was provided during current working meetings in Chelan.*
- WHC WHC will provide a proposal for reporting CC₁₄ production data (i.e. what items, formats, frequency, etc.). (closed) *Proposed items provided on 6/8/92.*
- WHC WHC will draft a letter describing the site preparation, GPR, and waste storage activities for the Sodium Dichromate Site. (closed) *Letter sent 6/1/92.*
- WHC WHC/RL will prepare a letter to EPA and Ecology describing the approach to be taken for the gas cylinder. (open)

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EXPEDITED RESPONSE ACTION INTERFACE MEETING

-DECISIONS, AGREEMENTS, & COMMITMENTS-
June 8, 1991

PRELIMINARY FIELD ACTIVITIES FOR SODIUM DICHROMATE EXPEDITED RESPONSE ACTION

The proposed expedited response action for the Sodium Dichromate Barrel Landfill requires preliminary field investigations to further characterize the site. The data obtained will support the expedited response action proposal engineering evaluation/cost analysis. The primary preliminary field activity will be non-intrusive geophysical evaluations to determine the landfill dimensions (surface area and vertical extent). There are numerous metallic objects (debris) on the surface which will interfere with the geophysical evaluation methods. In order to reduce the metal objects effect on the survey, the U.S. Department of Energy, Richland Field Office proposes the following:

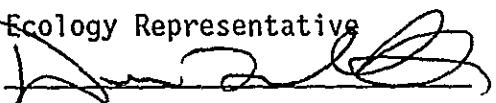
- Remove surface debris and identify locations.
- Perform field screening of soil as each debris is removed.
- Field screening in accordance with manufacturer instructions with detection of 5 ppm (Washington State Dangerous Waste Designation Limit) chrome.
- If screening indicates contamination levels are below 5 ppm, the debris shall be sent to the central solid waste landfill.
- If screening indicates contamination level is above 5 ppm, the debris shall be stored at the sodium dichromate barrel landfill monitoring well (number 699-93-46) pad.
- Perform required surveys on stored debris until final disposal.

The State of Washington-Department of Ecology, as lead regulatory agency, is requested to concur with the proposed approach prior to initiation of these activities. In addition, DOE and EPA concurrence is also desired.


Ecology Representative

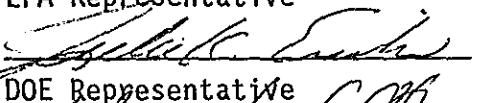
6-8/92

Date


EPA Representative

6-8/92

Date


DOE Representative

6-8-92

Date


WHC Representative

6/8/92

Date

;
Weekly Report, Week Ending June 5, 1992
EXPEDITED RESPONSE ACTIONS
Technical and Management Contact - Wayne L. Johnson, 376-1721
Environmental Division

618-9 Burial Ground Expedited Response Action - An exemption to DOE order 5820.2A for the treatment/disposal of the recovered solvent has been granted. Shipment has been scheduled for June 11, 1992, and should occur over a two to three day period since operation is limited to cooler temperatures.

The trench has been backfilled and bladed. Re-vegetation will take place in the fall. A procedure is being written to cover the destruction of the compressed gas cylinder found at the trench. An Oxarc employee inspected the cylinder at the site. It is suspected to have contained oxygen.

316-5 Process Trench Expedited Response Action - The Draft A final report was provided to the regulators and RL during the weekly interface meeting. The final data validation report has been forwarded for clearance, duplication and distribution. Summary tables from the report will be provided to the regulators during the June 8, 1992, weekly interface meeting.

200 West Area Carbon Tetrachloride Expedited Response Action and Arid Site - Problems have arisen with the activated carbon procurement. After the low offeror failed the environmental audit it left two offerors. Procurement started working with the next low offeror. However, the third offeror, had some exceptions to the terms and conditions of the contract which meant they were non-responsive. This essential means that we are now in a single source (not sole source) procurement with the second offeror because there is no competition. This requires obtaining cost and pricing data from the proposed offeror and their lower tier contractors, a very lengthy process.

There are two options: 1) Open discussions to remove the exceptions by the third offeror, which would equally apply to the second offeror, then request best and final offers and hope for two responsive and competitive bids; and 2) request a waiver from RL to eliminate the requirement for the cost and pricing data. Option 1 is the cleanest from a procurement perspective. However, if the third offeror comes back with the lowest bid we would have to conduct a pre-award environmental audit which would probably take about two weeks. As regards Option 2, since there has been completion up to this point, and since the costs are relatively close (approximately \$100,000 separation in the two offers of over \$1 million), there seems good justification for the waiver. It was decided to pursue Option 1 and it is expected that an order could be placed by Wednesday June 10, 1992, - if the second offeror is still low, or approximately two weeks hence - if the third offeror comes back the low offeror.

Four bids for procurement of the new VES units are being reviewed. The review team has been asked to complete the review by Monday, June 8, 1992, in an attempt to catch back on the schedule for this procurement.

Completion of ERA well 299-W18-246 (west of 216-Z-1A) began on June 4, 1992. Completion of ID characterization borehole 299-W18-248 (east of 216-Z-1A by well 299-W18-7) was finished on June 3, 1992. The drill rig at 299-W18-248 has moved to ID borehole 299-W15-217 (southwest corner of 216-Z-9 Trench) on

June 4, 1992. Site preparation will be conducted June 4 - 5, 1992, and drilling is expected to begin June 8, 1992. Completion of this well is expected by July 3, 1992.

Cable-tool drilling of the third ERA characterization well, 299-W15-216 (southeast of 216-Z-9 Trench), encountered a possible zone of perched water at 97 ft. depth on May 28, 1992. The revised well construction plan is to drive 12-in. casing to the confining layer, drive 10-in. casing two feet below that, and seal the interval with bentonite. The well will then be drilled to total depth (approximately 215 ft.) using 8-in. casing. During completion, the temporary casing will be backpulled and a 4-in. permanent casing installed. Both EPA and Ecology gave verbal approval on May 28, 1992, to proceed with this plan. A construction and completion diagram was given to DOE-RL, EPA, and Ecology on May 29, 1992, at the Monday interface meeting. As of June 3, 1992, the 12-in. casing had reached a depth of 116 ft. and the borehole was logged. The bentonite seal and 10-in. was set on June 4, 1992.

The new location of the third ID borehole was staked on June 3, 1992. Because of logistical difficulties involved in the previous plan to deepen 299-W18-94 on the south side of 216-Z-18 Crib, EFS recommended that we drill a new borehole instead. The new borehole will be on the north side of 216-Z-18, east of well 299-W18-98 along the centerline of the easternmost trench in the crib. Drilling and completion are expected to be finished by the end of July.

Phase I of the VOC-Arid ID portion of the soil gas survey was completed on May 28, 1992, with the exception of one or two sampling points which will be installed inside the PFP double fence and require support from PFP staff. The grid consists of soil gas probes along two NE-SW lines near the disposal sites. The highest carbon tetrachloride concentration observed was 72.9 ppm at a probe near the Z-9 Trench.

The following information is the combined data collected for VES operations for the time period May 27, 1992, through June 3, 1992. There were no significant problems.

CARBON-TET CONCENTRATION (AVERAGE)	CARBON-TET LBS/WEEK	FLOW SCFM	VACUUM IN/WATER	HOURS OF RUN TIME TOTAL	WELL NUMBER
103.6 ppm	4.11	108	24	15.5	W18-97

In anticipation for the receipt of large quantities of activated carbon sometime in July, preparations are underway to move to 24 hour operations of the VES. After discussions with Steve Demers of Operational Health and Safety on HPT coverage, the continued need for Beta CAMS, and other issues it is suggested that:

- Continued use of Beta cams will be required on the existing and new VES systems.

- Both CAM pickup/sampling ports be moved to the record sample port on the stack. This is the sampling point of interest for radionuclides. Further, it is suggested that the stack be set up as a compliance record sampler under the Z-1A number such that the sample papers can be "officially" analyzed by the 222-S Labs. Relocation of the sample ports will alleviate shut down of the VES due to spurious *radon spikes causing the CAM to alarm. To date no radionuclides have been detected in the VES system.
- When operating in 24 hour run mode, the frequency for source checking of the cams need not be done at each shift change.

Comments are being incorporated into the TI-010 Operations and Monitoring document for an overall revision of the document.

The final draft of the Radon Test Plan was received from EBASCO and comments are due by Monday, June 8, 1992. Preparations have been made with Sampling and Mobile Labs (SML) and 222-S Labs for sampling and analysis of the GAC canisters prior to initiation of the Radon test.

North Slope Expedited Response Action - Written approval to proceed with an expedited response action at the north slope waste sites has been obtained. Preparation of the Project Plan continues. A letter is being prepared requesting Ecology and EPA approval to proceed with removal of physical hazards located on the North Slope during the site characterization activities.

The field survey locating nesting sites of sensitive bird species which are considered to be threatened or endangered continues. The results of this survey will be used to develop the implementation schedule for the ERA. Field activities located in the vicinity of these nests must be completed after the hatchlings have fledged.

An attempt to locate potential underground storage tanks at the NIKE missile utilizing a metal detector was attempted. As built maps of the NIKE missile sites, showing the locations of the tanks, were used as a basis for performing the search. No underground tanks were located by this survey. The detector was successful in locating sub-surface pipelines and concrete pads.

Sodium Dichromate Expedited Response Action - A site grid for geophysical surveys has been installed. Estimated area of site is approximately 1500 X 300 ft. Approval from Ecology to pickup/remove surface metallic debris to eliminate interference with the geophysical surveys has been requested.

Physical Separation Treatability Test - Progress has been impeded in opening the proposals as DOE and PNL have not resolved evaluation issues. The delay in evaluating the proposals is causing subsequent delays in the schedule which will lead to the need to perform the test during the winter months. The problems with conducting the test during the winter should revolve around the issue of liquid waste handling. Alternatives cannot be considered until the selection process is complete. The "winning" vendor system must be evaluated to prepare alternatives for the liquid. The alternatives may require

regulator approval (i.e. negotiation) in order to maintain a schedule which leads to obtaining an expedited ROD for the 300-FF-1 OU.

Additionally, the NEPA short process EA which was submitted to DOE-HQ in January 1992 has been returned disapproved due to the May 26, 1992, changes in the NEPA process. WHC will now prepare a CX information bulletin for RL to approve.

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CARBON-TET CONCENTRATION (AVERAGE)	CCL ₄ REMOVED LBS/WEEK	CUMULATIVE CCL ₄ , Pounds	EFFLUENT CCL ₄ EMISSIONS, ppm	FLOW SCFM	VACUUM inches W.G.	RUN TIME hrs/wk, Total hrs	HOURS SCHEDULED	WELL FIELD (Well Nos.)
103.6 ppm	4.11		< 1	108	24	15.5/		W18-97

Table 2.2 – Project 316-5 Process Trench Expedited Response Action

Radiochemical Analyses

Case # N1-09-162-9539, N1-09-170-9547, N1-09-164-9555, N1-08-119-9522,
N1-09-011-9529, and N1-08-033-9513

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Radiochemical Analytes	Analytical Case # N1-09-162-9539, N1-09-170-9547, and N1-09-164-9555														
	MDA	B014Q5 (pCi/g)	Q	MDA	B014Q7 (pCi/g)	Q	MDA	B014Q8 (pCi/g)	Q	MDA	B014Q0 (pCi/g)	Q	MDA	B014Q1 (pCi/g)	Q
U-234	0.03	16.060	R	0.02	13.460	R	0.02	26.270	R	0.02	0.080	R	0.02	0.030	R
U-235	0.02	2.160	R	0.02	2.120	R	0.02	3.560	R	0.02	0.007	R	0.03	0.020	R
U-238	0.18	11.260	R	0.11	9.740	R	0.16	18.620	R	0.02	0.050	R	0.02	0.030	R
Cs-137	0.03	0.020	UJ	0.07	0.145	UJ	0.05	0.445	7.41	<7.412	UJ	8.99	<8.991	UJ	
Co-60	0.05	<0.045	UJ	0.05	<0.045	UJ	0.06	<0.056	UJ	11.8	<11.78	UJ	10.8	<10.75	UJ
Ra-226	0.09	0.369		0.07	0.337		0.08	0.377		15	<14.95	UJ	18.4	11.220	UJ
Th-232	0.16	0.447		0.41	0.606		0.13	0.601		28.2	20.710	UJ	39.6	32.660	UJ
Th-228	0.06	<0.08	UJ	0.07	0.480		0.04	0.431		12.9	16.470		13.5	<13.65	UJ
GROSS ALPHA	3.52	19.600		3.73	21.500		4.11	71.500		5.64	-2.610	UJ	3.43	0.740	U
GROSS BETA	2.3	19.600		2.99	21.500		2.01	34.400		2.41	-0.255	UJ	1.81	0.029	U
Sr-90	0.43	0.900		0.58	0.214	UJ	0.41	0.184	U	0.35	0.063	U	0.26	0.551	
Tc-99															
TOTAL URANIUM															
Pu-238															
Pu-239															
	MDA	B014Q2 (pCi/g)	Q	MDA	B014Q3 (pCi/g)	Q	MDA	B014Q4 (pCi/g)	Q	MDA	B01016 (pCi/g)	Q			
U-234	0.03	59.170	R	0.05	44.890	R	0.02	16.860	R	0.04	59.690	R			
U-235	0.04	7.730	R	0.06	6.100	R	0.02	2.050	R	2.78	3.930	R			
U-238	0.32	43.510	R	0.34	32.340	R	0.11	12.030	R	0.24	44.060	R			
Cs-137	0.06	1.465		0.06	0.907	UJ	3.61	<3.612	UJ	0.06	1.212				
Co-60	0.05	0.036	UJ	0.07	<0.069	UJ	4.24	<4.242	UJ	0.03	0.140	J			
Ra-226	0.1	0.362		0.07	0.372		0.55	1.572		0.1	0.317				
Th-232	0.19	0.738		0.18	0.699		1.63	<1.632	UJ	0.2	0.383				
Th-228	0.09	0.690		0.05	0.477		0.41	0.829		0.06	0.413				
GROSS ALPHA	3.87	188.000		5.85	98.200		6.09	20.100		3.94	165.000				
GROSS BETA	1.89	119.000		1.99	73.300		2.45	30.200		1.99	120.000				
Sr-90	0.29	0.106	U	0.31	0.213	U	0.31	-0.284	U	0.27	0.088	U			
Tc-99										0.22	3.680	R			
TOTAL URANIUM										NA	80.000	J			
Pu-238										0.03	0.006	R			
Pu-239										0.029	0.037	R			

Table 2.2 – Project 316-5 Process Trench Expedited Response Action

Radiochemical Analyses

Case # N1-09-162-9539, N1-09-170-9547, N1-09-164-9555, N1-08-119-9522,
N1-09-011-9529, and N1-08-033-9513

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Radiochemical Analytes	Analytical Case # N1-08-119-9522 and N1-09-011-9529														
	MDA	B01025 (pCi/g)	Q	MDA	B01027 (pCi/g)	Q	MDA	B01029 (pCi/g)	Q	MDA	B01031 (pCi/g)	Q	MDA	B01018 (pCi/g)	Q
U-234	0.020	7.150	R	0.020	6.200	R	0.040	8.450	R	0.020	3.500	R	0.040	21.920	R
U-235	0.030	0.999	R	0.030	0.900	R	0.040	1.110	R	0.020	0.370	R	0.030	2.855	R
U-238	0.100	5.350	R	0.090	4.709	R	0.130	5.980	R	0.040	2.490	R	0.160	15.360	R
Cs-137	0.040	0.238		0.040	0.698		0.030	0.021	UJ	0.030	0.035		0.050	0.376	
Co-60	0.030	0.051		0.320	0.322		0.000	0.000	UJ	0.040	<0.0367	UJ	0.060	<0.0578	UJ
Ra-226	0.070	0.349	J	0.060	0.256	J	0.050	0.266	J	0.060	0.237	J	0.090	0.317	J
Th-232	0.150	0.483		0.160	0.380		0.140	0.367		0.130	0.267		0.180	0.488	
Th-228	0.070	0.444	J	0.040	0.374	J	0.030	0.348	J	0.030	0.334	J	0.060	0.558	J
GROSS ALPHA	6.670	4.370	UJ	5.390	6.830		4.740	7.260		5.120	3.210	UJ	4.400	42.500	
GROSS BETA	2.170	9.310	J	2.050	15.300	J	2.300	15.600	J	2.050	15.000	J	2.650	41.000	
Sr-90	NA	0.407	UJ	NA	0.407	UJ	NA	0.386	UJ	NA	-0.937	UJ	0.420	0.702	
Tc-99	0.180	0.787	R	0.230	1.658	R	0.110	0.321	R	0.500	0.448	R	0.410	0.458	R
TOTAL URANIUM	8.997	<30	UJ	8.997	<29	UJ	8.997	<33	UJ	8.997	<32	UJ	NA	33.300	
Pu-238	0.030	0.210	R	0.040	0.004	R	0.030	-0.004	R	0.150	0.013	R	0.050	0.010	R
Pu-239	0.030	0.004	R	0.040	0.008	R	0.020	0.008	R	0.100	0.064	R	0.040	0.019	R
	MDA	B01019 (pCi/g)	Q	MDA	B01020 (pCi/g)	Q	MDA	B01022 (pCi/g)	Q	MDA	B01023 (pCi/g)	Q			
U-234	0.020	119.600	R	1.750	2602.000	R	1.190	1515.000	R	0.090	256.800	R			
U-235	2.760	4.642	R	68.000	216.300	R	64.100	99.790	R	0.110	-11.950	R			
U-238	0.150	93.250	R	8.600	1779.000	R	5.820	1062.000	R	0.090	282.700	R			
Cs-137	0.100	2.390		0.140	1.731		0.230	1.324		0.090	0.601				
Co-60	0.090	0.649	J	0.080	1.569	J	0.150	1.775	J	0.070	0.718	J			
Ra-226	0.170	0.813	J	0.260	1.235	J	0.380	0.843	J	0.140	1.128	J			
Th-232	0.350	1.081		0.390	0.716		0.650	0.990		0.280	1.252				
Th-228	0.090	1.079	J	0.230	2.590	J	0.260	1.242	J	0.080	1.468	J			
GROSS ALPHA	4.890	147.000		4.450	2692.000		5.090	1645.000		5.050	515.000				
GROSS BETA	2.370	151.000		2.270	2773.000		2.370	1523.000		1.780	335.000				
Sr-90	0.440	-0.561	U	0.220	1.613		0.290	0.791		0.230	1.499				
Tc-99	0.710	22.220	R	6.410	651.900	R	1.610	516.600	R	4.110	369.900	R			
TOTAL URANIUM	NA	206.700		NA	1893.000		NA	1967.000		NA	499.700				
Pu-238	0.020	0.096	R	0.060	0.386	R	0.180	0.109	R	0.100	0.104	R			
Pu-239	0.020	0.174	R	0.060	0.482	R	0.020	0.304	R	0.100	0.208	R			

Table 2.2 – Project 316-5 Process Trench Expedited Response Action
 Radiochemical Analyses
 Case # N1-09-162-9539, N1-09-170-9547, N1-09-164-9555, N1-08-119-9522,
 N1-09-011-9529, and N1-08-033-9513

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Radiochemical Analytes	Analytical Case # N1-08-033-9513																				
	MDA	B01032 (pCi/g)	Q	MDA	B01033 (pCi/g)	Q	MDA	B01034 (pCi/g)	Q	MDA	B01035 (pCi/g)	Q	MDA	B01036 (pCi/g)	Q	MDA	B01038 (pCi/g)	Q	MDA	B01040 (pCi/g)	Q
U-234	0.050	12.110	R	0.940	502.700	R	2.730	3565.000	R	0.060	67.690	R	1.210	1492.000	R	3.860	77677.000	R	4.750	9747.000	R
U-235	0.050	1.715	R	1.130	73.880	R	261.000	318.600	R	0.070	9.186	R	67.500	138.300	R	4.670	1556.000	R	656.000	379.200	R
U-238	0.180	9.190	R	5.210	356.500	R	18.300	2917.000	R	0.460	49.830	R	8.130	1072.000	R	48.000	6032.000	R	26.900	9132.000	R
Cs-137	0.030	0.523	J	0.050	0.553	J	0.150	1.083	J	0.030	0.393	J	0.080	0.528	J	0.200	0.892	J	0.220	1.140	J
Co-60	0.030	0.220	J	0.030	0.113	J	0.070	0.554	J	0.020	0.082	J	0.040	0.359	J	0.080	0.788	J	0.140	0.963	J
Ra-226	0.040	0.421	J	0.070	0.485	J	0.260	1.244	J	0.040	0.393	J	0.120	0.404	J	0.360	0.994	J	0.450	0.971	J
Th-232	0.120	0.595	J	0.130	0.626	J	0.320	1.429	J	0.100	0.594	J	0.220	0.828	J	0.490	1.751	J	0.620	1.656	J
Th-228	0.030	0.642	J	0.070	1.533	J	0.170	5.385	J	0.030	0.573	J	0.130	<0.129	UJ	0.260	15.730	J	4.210	16.790	J
GROSS ALPHA	8.880	24.300	J	6.010	316.000	J	10.300	3116.000	J	8.950	48.800	J	8.520	1618.000	J	4.090	3088.000	J	6.120	4450.000	J
GROSS BETA	7.050	29.800	J	3.270	454.000	J	4.540	5444.000	J	3.590	66.100	J	5.000	1787.000	J	2.030	11180.000	J	4.900	12210.000	J
Sr-90	NA	0.201	UJ	NA	1.314	J	NA	15.120	J	NA	0.212	UJ	NA	6.727	J	NA	26.280	J	NA	18.490	J
Tc-99	0.340	3.805	R	2.020	99.800	R	5.710	738.500	R	19.900	2251.000	R	3.930	690.600	R	6.660	3603.000	R	10.500	3446.000	R
TOTAL URANIUM	NA	27.830	J	NA	1032.000	J	NA	6718.000	J	NA	104.200	J	NA	2132.000	J	NA	15535.000	J	NA	20034.000	J
Pu-238	0.160	0.192	R	0.050	0.073	R	0.110	0.226	R	0.060	0.022	R	0.090	0.156	R	0.180	1.239	R	0.270	0.610	R
Pu-239	0.110	1.391	R	0.050	0.168	R	0.110	1.557	R	0.050	0.011	R	0.050	0.531	R	0.130	4.108	R	0.000	4.720	R
	MDA	B01041 (pCi/g)	Q	MDA	B01042 (pCi/g)	Q	MDA	B01043 (pCi/g)	Q	MDA	B01044 (pCi/g)	Q	MDA	B01045 (pCi/g)	Q	MDA	B01046 (pCi/g)	Q			
U-234	0.070	12.980	R	0.120	42.830	R	0.090	105.700	R	0.040	36.670	R	0.050	5.542	R	0.040	71.510	R			
U-235	0.090	2.133	R	0.140	7.391	R	5.120	10.110	R	2.810	2.942	R	0.060	0.679	R	5.500	4.200	R			
U-238	0.250	8.642	R	0.580	32.880	R	0.610	76.500	R	0.220	30.140	R	0.110	4.289	R	0.240	68.980	R			
Cs-137	0.020	0.038	J	NA	0.341	J	0.040	0.608	J	0.030	0.685	J	0.020	0.344	J	0.004	1.067	J			
Co-60	0.020	0.084	J	0.020	0.067	J	0.030	0.137	J	0.020	0.309	J	0.020	0.045	J	NA	1.034	J			
Ra-226	0.040	0.390	J	NA	0.382	J	0.070	0.402	J	0.050	0.422	J	0.040	0.434	J	0.070	0.555	J			
Th-232	0.080	0.562	J	0.120	0.651	J	0.120	0.566	J	0.110	0.583	J	0.090	0.518	J	NA	0.674	J			
Th-228	0.020	0.563	J	NA	0.655	J	0.070	0.805	J	0.030	0.615	J	0.020	0.518	J	0.040	0.713	J			
GROSS ALPHA	10.900	10.500	UJ	8.390	62.500	J	7.330	23.700	J	7.650	19.300	J	9.020	7.690	UJ	7.010	54.700	J			
GROSS BETA	3.610	16.700	J	4.240	120.000	J	2.990	37.300	J	3.730	37.700	J	4.460	13.900	J	3.120	80.900	J			
Sr-90	NA	0.040	UJ	NA	0.614	J	NA	0.396	UJ	NA	0.362	UJ	NA	0.201	UJ	NA	0.601	J			
Tc-99	1.110	1.320	R	1.230	22.000	R	1.370	27.030	R	1.140	13.010	R	1.920	11.500	R	9.580	23.640	R			
TOTAL URANIUM	NA	15.890	J	NA	61.690	J	NA	143.600	J	NA	74.690	J	NA	12.070	J	NA	144.600	J			
Pu-238	0.060	0.000	R	0.180	0.027	R	0.040	0.219	R	0.040	0.055	R	0.080	-0.006	R	0.170	0.224	R			
Pu-239	0.671	-0.006	R	0.128	-0.027	R	0.050	0.197	R	0.040	0.087	R	0.060	0.266	R	0.170	0.298	R			

Table 2.2 – Project 316-5 Process Trench Expedited Response Action

Radiochemical Analyses

**Case # N1-09-162-9539, N1-09-170-9547, N1-09-164-9555, N1-08-119-9522,
N1-09-011-9529, and N1-08-033-9513**

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Radiochemical Analytes	Analytical Case #9109L603, 9108L329					
	MDA	B01021 (pCi/g)	Q	MDA	B01037 (pCi/g)	Q
U-234		390.00	R		72.00	R
U-235		19.00	R		7.90	R
U-238		290.00	R		64.00	R
Cs-137		2.29	R		NR	
Co-60		2.51	R		0.85	R
Ra-226		1610.00	R		<4	R
Th-232		0.07	R		0.46	R
Th-228		2.72	R		11.54	R
Gross Alpha		740.00	R		9500.00	R
Sr-90						
Tc-99		100.00	R		1600.00	R
Total Uranium		NR			21000.00	R
Pu-239		0.18	R		1.60	R

Table 3.1 – Project 316–5 Process Trench Expedited Response Action**Metals and Cyanide Analyses**

**Data Package # N109164, N1-09-011, 9109L603, 08-116, N108033, 9108L329, N1-09-170,
N1-09-162, and 9109L796**

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Data Package # N109164

Inorganic Analytes	CRQL	B014Q2 Result	Q	B014Q3 Result	Q	B014Q4 Result	Q	B01016 Result	Q
Aluminum	200	5130.00	J	8850.00	J	9120.00	J	5530.00	
Antimony	60	6.10	J	5.50	J	5.90	J	2.20	UJ
Arsenic	10	1.80	J	2.10	J	2.10		1.70	J
Barium	200	79.50		121.00		105.00		85.70	
Beryllium	5	0.20	U	0.46	J	0.42	J	0.26	J
Cadmium	5	0.39	U	0.47	U	0.44	U	0.40	U
Calcium	5000	4660.00		7150.00		4790.00		4500.00	
Chromium	10	8.60		7.20		7.00		6.20	
Cobalt	50	12.60		14.30		13.90		12.90	
Copper	25	60.40		53.70		25.50		53.20	
Iron	100	21700.00		27400.00		26600.00		23100.00	
Lead	3	3.70	J	6.10	J	5.10	J	3.90	J
Magnesium	5000	3790.00		5520.00		4940.00		4190.00	
Manganese	15	525.00		638.00		396.00		528.00	
Mercury	0.2	0.14		0.10		0.10	U	0.12	
Nickel	40	32.30		29.10		12.00		29.20	
Potassium	5000	631.00		965.00		1020.00		651.00	
Selenium	5	0.82	UJ	0.95	UJ	0.86	UJ	0.86	UJ
Silver	10	0.87	U	1.00	U	0.44	U	0.66	U
Sodium	5000	186.00		214.00		231.00		171.00	
Thallium	10		R		R		R		R
Vanadium	50	50.10	J	57.90		57.30		57.60	
Zinc	20	93.40	J	95.90	NR	58.00	J	86.90	NR
Cyanide	10		NR				NR		NR

**Table 3.1 – Project 316-5 Process Trench Expedited Response Action
Metals and Cyanide Analyses**

**Data Package # N109164, N1-09-011, 9109L603, 08-116, N108033, 9108L329, N1-09-170,
N1-09-162, and 9109L796**

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Data Package # N1-09-011

Inorganic Analytes	CRQL	B01018 Result	Q	B01019 Result	Q	B01020 Result	Q	B01022 Result	Q	B01023 Result	Q
Aluminum	200	4980.00	UJ	11300.00	UJ	6510.00	UJ	5710.00	UJ	6280	UJ
Antimony	60	6.40	J	7.80	J	12.50	J	5.30	J	8.9	J
Arsenic	10	2.20	J	2.70	J	4.40	J	4.50	J	2.4	J
Barium	200	90.20		134.00		235.00		234.00		249	
Beryllium	5	0.45	J	0.50	J	0.87	J	0.85	J	0.46	J
Cadmium	5	0.62	U	0.82	U	1.10	J	2.90	J	0.75	U
Calcium	5000	4420.00		4530.00		12800.00		17700.00		17300	
Chromium	10	5.80	J	20.50		55.40		52.20		38.4	
Cobalt	50	10.70		14.00		5.80	U	9.20		4.5	U
Copper	25	28.80		317.00		1500.00		1390.00		357	
Iron	100	19300.00		27000.00		15000.00		14900.00		18800	
Lead	3	3.30		18.40		69.00		96.20		56	
Magnesium	5000	3480.00		6460.00		1550.00		1770.00		2040	
Manganese	15	882.00		1010.00		1310.00		1080.00		2480	
Mercury	0.2	0.10	U	0.46		2.10		2.00		0.86	
Nickel	40	14.00		65.70		152.00		144.00		112	
Potassium	5000	617.00	UJ	1900.00	UJ	372.00	J	378.00	J	513	
Selenium	5	0.82	UJ	1.00	UJ	1.30	UJ	1.30	UJ	0.94	UJ
Silver	10	0.83	U	9.40		69.80		58.00		8.2	
Sodium	5000	182.00		234.00		843.00		852.00		416	
Thallium	10	0.62	U	0.77	U	1.00	U	0.96	U	0.71	U
Vanadium	50	34.20		55.50		21.00		25.80		30.9	
Zinc	20	35.10		182.00		563.00		588.00		327	
Cyanide	10	5.30	U	7.20	U	8.20	U	8.30	U	6.4	U

**Table 3.1 – Project 316–5 Process Trench Expedited Response Action
Metals and Cyanide Analyses**

**Data Package # N109164, N1-09-011, 9109L603, 08-116, N108033, 9108L329, N1-09-170,
N1-09-162, and 9109L796**

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Data Package # 9109L603

Inorganic Analytes	CRQL	B01021 Result	Q
Aluminum	200	6320.00	R
Antimony	60	20.30	R
Arsenic	10	1.50	R
Barium	200	174.00	R
Beryllium	5	0.37	R
Cadmium	5	2.20	R
Calcium	5000	13600.00	R
Chromium	10	29.20	R
Cobalt	50	2.96	R
Copper	25	1080.00	R
Iron	100	8160.00	R
Lead	3	67.50	R
Magnesium	5000	903.00	R
Manganese	15	802.00	R
Mercury	0.2	1.61	R
Nickel	40	80.20	R
Potassium	5000	353.00	R
Selenium	5	1.80	R
Silver	10	30.60	R
Sodium	5000	853.00	R
Thallium	10	0.74	R
Vanadium	50	3.69	R
Zinc	20	499.00	R
Cyanide	10	1.78	R

Table 3.1 – Project 316-5 Process Trench Expedited Response Action

Metals and Cyanide Analyses

**Data Package # N109164, N1-09-011, 9109L603, 08-116, N108033, 9108L329, N1-09-170,
N1-09-162, and 9109L796**

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Data Package # 08-116

Inorganic Analytes	CRQL	B01025 Result	Q	B01027 Result	Q	B01029 Result	Q	B01031 Result	Q
Aluminum	200								
Antimony	60								
Arsenic	10								
Barium	200								
Beryllium	5								
Cadmium	5								
Calcium	5000								
Chromium	10								
Cobalt	50								
Copper	25								
Iron	100								
Lead	3								
Magnesium	5000								
Manganese	15								
Mercury	0.2								
Nickel	40								
Potassium	5000								
Selenium	5								
Silver	10								
Sodium	5000								
Thallium	10								
Vanadium	50								
Zinc	20								
Cyanide	10								

Table 3.1—Project 316-5 Process Trench Expedited Response Action

Metals and Cyanide Analyses

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Data Package # N109164, N1-09-011, 9109L603, 08-116, N108033, 9108L329, N1-09-170,

N1-09-162, and 9109L796

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Data Package # N108033

Inorganic Analytes	CRQL	B01032 Result	Q Result	B01033 Result	Q Result	B01034 Result	Q Result	B01035 Result	Q Result	B01036 Result	Q Result	B01038 Result	Q Result	B01040 Result	Q Result	B01041 Result	Q Result	B01042 Result	Q Result	B01043 Result	Q Result	B01044 Result	Q Result	B01045 Result	Q Result	B01046 Result	Q Result
Aluminum	200	4130.00		3780.00		7390.00		4210.00		4270.00		10000.00		10000.00		3840.00		4730.00		7040.00		5520.00		3580.00		7980.00	
Antimony	60	3.60	UJ	3.70	UJ	4.50	UJ	11.40	UJ	7.40	UJ	16.10	UJ	10.30	UJ	18.70	UJ	11.70	UJ	8.60	UJ	10.30	UJ	9.50	UJ	19.50	UJ
Arsenic	10	1.30	J	1.10	J	3.10	J	1.10	J	1.80	J	5.20	J	6.20	J	0.83	UJ	0.87	J	3.10	J	1.50		0.78	U	1.70	J
Barium	200	76.20		72.30		265.00		79.20		143.00		216.00		216.00		81.40		90.30		133.00		95.10		80.30		111.00	
Beryllium	5	0.21	U	0.22	U	0.48	J	0.21	U	0.22	U	1.90		1.50	J	0.21	U	0.21	U	0.36	J	0.20	U	0.21	U	0.33	J
Cadmium	5	0.64	U	0.65	U	0.80	U	0.64	U	2.50		1.00	U	0.96	U	0.64	U	0.64	U	0.60	U	0.60	U	0.62	U	0.58	U
Calcium	5000	4100.00		3970.00		9710.00		4590.00		6200.00		7540.00		7840.00		4200.00		4980.00		3730.00		3870.00		4620.00		4320.00	
Chromium	10	4.90	U	3.30	U	34.70		4.30	U	74.20		177.00		129.00		2.20	U	9.40		173.00		28.70		1.70	U	33.40	
Cobalt	50	10.50		8.60		9.70		12.30		16.30		12.80		10.90		11.30		13.30		18.00		11.10		9.10		14.80	
Copper	25	81.00		147.00		1460.00		144.00		1190.00		3300.00		3580.00		72.70		208.00		974.00		282.00		30.20		445.00	
Iron	100	18200.00		17000.00		17600.00		19000.00		20100.00		17400.00		16800.00		19500.00		23200.00		31000.00		18200.00		17200.00		21700.00	
Lead	3	3.40		11.80		95.80		3.50		19.00		154.00		187.00		3.30		5.40		39.40		13.40		2.00		17.40	
Magnesium	5000	3590.00		2900.00		2670.00		3080.00		2520.00		1840.00		1900.00		3040.00		3550.00		4150.00		3450.00		2970.00		4480.00	
Manganese	15	229.00	J	200.00	J	213.00	J	427.00	J	456.00	J	192.00	J	321.00	J	281.00	J	264.00	J	278.00	J	275.00	J	217.00	J	340.00	J
Mercury	0.2	0.10	U	0.11	U	1.10		0.10	U	0.85		3.50		3.00		0.99	U	0.12		1.40		0.63		0.09	U	0.54	
Nickel	40	16.60		14.30		160.00		31.60		127.00		812.00		859.00		13.30		25.50		186.00		41.10		6.70		61.70	
Potassium	5000	419.00		382.00		592.00		456.00		342.00		459.00	J	425.00	J	398.00		488.00		619.00		678.00		424.00		931.00	R
Selenium	5	R		R		R		R		R		R		R		R		R		R		R		R		R	
Silver	10	1.80	U	0.88	U	38.70		1.10	U	54.50		144.00		128.00		0.85	U	3.00	U	71.60		16.20		0.83	U	23.20	
Sodium	5000	150.00		185.00		824.00		188.00		201.00		853.00		932.00		211.00		238.00		229.00		142.00		146.00		168.00	
Thallium	10	0.62	U	0.66	U	0.80	U	0.64	U	0.67	U	1.00	U	0.97	U	0.63	U	0.61	U	0.61	U	0.59	U	0.58	U	0.58	U
Vanadium	50	33.90		36.60		80.70		42.00		176.00		181.00		176.00		43.20		53.50		91.40		41.40		25.40		46.60	
Zinc	20	65.50		60.50		225.00		91.70		260.00		305.00		302.00		48.90		72.90		212.00		120.00		21.60		196.00	
Cyanide	10	5.50	UJ	6.30	UJ	6.80	UJ	5.50	UJ	5.80	UJ	9.20	UJ	8.10	UJ	5.00	UJ	5.00	UJ	5.10	UJ	6.10	UJ	4.90	UJ	4.70	UJ

Table 3.1 – Project 316–5 Process Trench Expedited Response Action**Metals and Cyanide Analyses**

**Data Package # N109164, N1-09-011, 9109L603, 08-116, N108033, 9108L329, N1-09-170,
N1-09-162, and 9109L796**

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Data Package # 9108L329

Inorganic Analytes	CRQL	B01037 Result	Q
Aluminum	200	4270.00	
Antimony	60	5.08	U
Arsenic	10	2.00	J
Barium	200	132.00	
Beryllium	5	0.28	U
Cadmium	5	0.96	J
Calcium	5000	6300.00	
Chromium	10	80.40	J
Cobalt	50	8.10	U
Copper	25	1310.00	
Iron	100	11600.00	
Lead	3	78.30	
Magnesium	5000	2190.00	
Manganese	15	260.00	
Mercury	0.2	1.69	J
Nickel	40	270.00	J
Potassium	5000	791.00	U
Selenium	5	1.90	J
Silver	10	60.60	
Sodium	5000	405.00	
Thallium	10	0.56	UJ
Vanadium	50	108.00	
Zinc	20	173.00	J
Cyanide	10	1.40	U

Table 3.1 – Project 316-5 Process Trench Expedited Response Action

Metals and Cyanide Analyses

**Data Package # N109164, N1-09-011, 9109L603, 08-116, N108033, 9108L329, N1-09-170,
N1-09-162, and 9109L796**

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Data Package # N1-09-170

Inorganic Analytes	CRQL	B014Q0 Result	Q	B014Q1 Result	Q
Aluminum	200	32.10	U	17.00	U
Antimony	60	14.00	U	14.00	U
Arsenic	10	2.00	U	2.00	U
Barium	200	1.00	U	1.00	U
Beryllium	5	1.00	U	1.00	U
Cadmium	5	1.00	U	1.00	U
Calcium	5000	138.00		8.00	U
Chromium	10	2.00	U	2.00	U
Cobalt	50	2.00	U	2.00	U
Copper	25	2.00	U	2.00	U
Iron	100	15.40	U	7.00	U
Lead	3	2.00	U	2.70	J
Magnesium	5000	14.50	U	14.00	U
Manganese	15	1.00	U	1.00	U
Mercury	0.2	0.20	UJ	0.20	UJ
Nickel	40	5.00	U	5.00	U
Potassium	5000	73.00	U	73.00	U
Selenium	5	4.00	UJ	4.00	UJ
Silver	10	5.00	U	5.00	U
Sodium	5000	127.00	J	38.00	U
Thallium	10	4.00	U	4.00	U
Vanadium	50	2.00	U	2.00	U
Zinc	20	5.00	U	5.00	U
Cyanide	10	NR		NR	

Table 3.1 – Project 316-5 Process Trench Expedited Response Action Metals and Cyanide Analyses
Data Package # N109164, N1-09-011, 9109L603, 08-116, N108033, 9108L329, N1-09-170, 1-09-162, and 9109L796
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Data Package # N1-09-162

Inorganic Analytes	CRQL	B014Q5 Result	Q	B014Q7 Result	Q	B014Q8 Result	Q
Aluminum	200	5230.00		5320.00		6000.00	
Antimony	60	22.90	UJ	14.50	UJ	13.40	UJ
Arsenic	10	1.90	UJ	2.40	UJ	2.50	UJ
Barium	200	79.90		82.90		92.30	
Beryllium	5	0.33	U	0.37	U	0.39	U
Cadmium	5	0.69	U	0.64	U	0.68	U
Calcium	5000	4500.00		4250.00		4390.00	
Chromium	10	4.10	J	3.60	J	5.40	J
Cobalt	50	10.20		11.70		12.80	
Copper	25	38.30		31.20		68.60	
Iron	100	21500.00		21500.00		21900.00	
Lead	3	3.10		3.10		3.60	
Magnesium	5000	3710.00		3470.00		3900.00	
Manganese	15	324.00	J	279.00	J	331.00	J
Mercury	0.2	0.11	U	0.10	U	0.20	
Nickel	40	16.00		15.40		17.00	
Potassium	5000	492.00		457.00		617.00	
Selenium	5	0.88	UJ	0.85	UJ	0.85	UJ
Silver	10	0.92	U	0.85	U	0.90	U
Sodium	5000	165.00		175.00		222.00	
Thallium	10		R		R		R
Vanadium	50	45.30		52.30		47.90	
Zinc	20	63.80		55.30		59.00	
Cyanide	10	NR		NR		NR	

Table 3.1 – Project 316-5 Process Trench Expedited Response Action**Metals and Cyanide Analyses**

**Data Package # N109164, N1-09-011, 9109L603, 08-116, N108033, 9108L329, N1-09-170,
N1-09-162, and 9109L796**

(Continued) page 9 of 9

Data Package # 9109L796

Inorganic Analytes	CRQL	B014Q6 Result	Q	B014V0 Result	Q
Aluminum	200	3930.00	J	7520.00	J
Antimony	60	3.89	U	4.39	U
Arsenic	10	0.77	J	0.47	UJ
Barium	200	76.20		134.00	
Beryllium	5	0.35	J	0.81	J
Cadmium	5	0.43	U	1.10	J
Calcium	5000	3920.00	J	6310.00	J
Chromium	10	2.20	J	16.10	
Cobalt	50	8.70		8.60	
Copper	25	28.70	J	19.50	J
Iron	100	14400.00	J	14400.00	J
Lead	3	2.50	J	7.60	J
Magnesium	5000	2650.00	J	5420.00	J
Manganese	15	224.00	J	170.00	J
Mercury	0.2	0.11	U	0.12	U
Nickel	40	12.50		8.80	J
Potassium	5000	395.00	J	4170.00	
Selenium	5	0.43	U	0.47	UJ
Silver	10	13.60	J	13.10	J
Sodium	5000	128.00		299.00	
Thallium	10	0.43	U	0.47	U
Vanadium	50	19.90		33.40	
Zinc	20	45.70	J	43.50	J
Cyanide	10	NR		NR	

Table 4-1 Project 316-5 Process Trench Expedited Response Action**General Chemistry****Case # N1-10-003,N1-09-150,N1-09-142****Analytical Case # N1-10-003**

Chemical Analytes	MDA	B014Q0 (mg/L)	Q	MDA	B014Q1 (mg/L)	Q
Fluoride	0.05	<.05	UJ	0.05	<.05	UJ
Nitrite	0.05	<.05	UJ	0.05	<.05	UJ
Nitrate	0.1	<0.1	UJ	0.1	0.5	J
Sulfate	0.3	<0.3	UJ	0.3	<0.3	UJ
pH	N/A	7.21	J	N/A	5.61	J
Ammonia	N/A	<0.5	R	N/A	<0.5	R

Analytical Case# N1-09-150

Chemical Analytes	MDA	B014Q2 (mg/kg)	Q	MDA	B014Q3 (mg/kg)	Q	MDA	B014Q4 (mg/kg)	Q
Fluoride	0.5	3.92	J	0.5	2.56	J	0.5	2.95	J
Nitrite	0.5	<0.5	J	0.5	<0.5	UJ	0.5	<0.5	UJ
Nitrate	1	5.89	J	1	5.61	J	1	5.23	J
Sulfate	3	19.02	J	3	19.60	J	3	18.18	J
pH	N/A	7.74	J	N/A	7.99	J	N/A	8.10	J
Ammonia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Analytical Case# N1-09-142

Chemical Analytes	MDA	B014Q5 (mg/kg)	Q	MDA	B014Q7 (mg/kg)	Q	MDA	B014Q8 (mg/kg)	Q
Fluoride	0.5	2.13	J	0.5	2.41	J	0.5	2.50	J
Nitrite	0.5	<0.5	UJ	0.5	<0.5	UJ	0.5	<0.5	UJ
Nitrate	1	5.00	J	1	5.29	J	1	5.31	J
Sulfate	3	18.12	J	3	17.71	J	3	20.20	J
pH	N/A	8.16	J	N/A	8.53	J	N/A	8.04	J
Ammonia	N/A	<0.5	R	N/A	<0.5	R	N/A	<0.5	R

9 2 1 2 6 4 0 1 3 6 0

Table 5-1 Project 316-5 Process Trench Expedited Response Action

Volatile Organic Data

Case # 9109L796,09-130,09-025,9019L603,08-116,08-047,

9108L329,N1-10-003

Chemical Analytes	B014Q6 In ug/kg	Q	B014V0 In ug/kg	Q	B01016 In ug/kg	Q	B014L1 In ug/kg	Q	B014L2 In ug/kg	Q	B014Q2 In ug/kg	Q	B014Q3 In ug/kg	Q	B014Q4 In ug/kg	Q	B014Q56 In ug/kg	Q	B014Q7 In ug/kg	Q	B014Q8 In ug/kg	Q		
Chloromethane	11	U	12	U	11	UJ	10	U	10	U	11	UJ	11	UJ	540	U	560	U	560	U	560	U	12	12
Bromomethane	11	U	12	U	11	U	10	U	10	U	11	U	11	U	540	U	560	U	560	U	560	U	12	12
Vinyl Chloride	11	U	1	U	11	U	10	U	10	U	11	U	11	U	540	U	560	U	560	U	560	U	12	12
Chloroethane	11	U	12	U	11	U	10	U	10	U	11	U	11	U	540	U	560	U	560	U	560	U	12	12
Methylene Chloride	14	U	14	U	5	U	52	U	6	U	6	U	6	U	230	U	180	U	170	U	560	U	6	12
Acetone	11	U	12	U	11	UJ	10	U	15	U	11	UJ	11	UJ	540	U	560	U	560	U	560	U	12	12
Carbon Disulfide	6	U	6	U	5	U	5	U	5	U	6	U	6	U	270	U	280	U	280	U	280	U	6	6
1,1 Dichloroethene	6	U	6	U	5	U	5	U	5	U	6	U	6	U	270	U	280	U	280	U	280	U	6	6
1,1 Dichloroethane	6	U	6	U	5	U	5	U	5	U	6	U	6	U	270	U	280	U	280	U	280	U	6	6
1,2 Dichloroethene (total)	6	U	6	U	5	U	5	U	5	U	6	U	6	U	270	U	280	U	280	U	280	U	6	6
Chloroform	6	U	6	U	5	U	5	U	5	U	6	U	6	U	270	U	280	U	280	U	280	U	6	6
1,2 Dichloroethane	6	U	6	U	5	U	5	U	5	U	6	U	6	U	270	U	280	U	280	U	280	U	6	6
2 Butanone	11	U	612	U	11	U	10	U	10	U	11	U	11	U	540	U	280	U	280	U	280	U	12	12
1,1,1 Trichloroethane	6	U	6	U	5	U	5	U	5	U	6	U	6	U	270	U	280	U	280	U	280	U	6	6
Carbon Tetrachloride	6	U	6	U	5	U	5	U	5	U	6	U	6	U	270	U	280	U	280	U	280	U	6	6
Vinyl Acetate	11	U	12	U	11	U	10	U	10	U	11	U	11	U	540	U	560	U	560	U	560	U	12	12
Bromodichloromethane	6	U	6	U	5	U	5	U	5	U	6	U	6	U	270	U	280	U	280	U	280	U	6	6
1,2 Dichloropropane	6	U	6	U	5	U	5	U	5	U	6	U	6	U	270	U	280	U	280	U	280	U	6	6
cis 1,3 Dichloropropene	6	U	6	U	5	U	5	U	5	U	6	U	6	U	270	U	280	U	280	U	280	U	6	6
Trichloroethane	6	U	6	U	5	U	5	U	5	U	6	U	6	U	100	U	280	U	280	U	280	U	6	6
Dibromochloromethane	6	U	6	U	5	U	5	U	5	U	6	U	6	U	270	U	280	U	280	U	280	U	6	6
1,1,2 Trichloroethane	6	U	6	U	5	U	5	U	5	U	6	U	6	U	270	U	280	U	280	U	280	U	6	6
Benzene	6	U	6	U	5	U	5	U	5	U	6	U	6	U	270	U	280	U	280	U	280	U	6	6
Trans 1,3 Dichloropropene	6	U	6	U	5	U	5	U	5	U	6	U	6	U	270	U	280	U	280	U	280	U	6	6
Bromoform	6	U	6	U	5	U	5	U	5	U	6	U	6	U	270	U	280	U	280	U	280	U	6	6
4 Methyl 2 Pentanone	11	U	12	U	11	U	10	U	10	U	11	U	11	U	540	U	560	U	560	U	560	U	12	12
2 Hexanone	11	U	12	U	11	U	10	U	10	U	11	U	11	U	540	U	560	U	560	U	560	U	12	12
Tetrachloroethene	6	U	6	U	5	U	5	U	5	U	6	U	6	U	110	U	280	U	280	U	280	U	6	6
1,1,1,2 Tetrachloroethane	6	U	6	U	5	U	5	U	5	U	6	U	6	U	270	U	280	U	280	U	280	U	6	6
Toluene	6	U	6	U	5	U	5	U	5	U	6	U	6	U	270	U	280	U	280	U	280	U	6	6
Chlorobenzene	6	U	6	U	5	U	5	U	5	U	6	U	6	U	270	U	280	U	280	U	280	U	6	6
Ethylbenzene	6	U	6	U	5	U	5	U	5	U	6	U	6	U	270	U	280	U	280	U	280	U	6	6
Styrene	6	U	6	U	5	U	5	U	5	U	6	U	6	U	270	U	280	U	280	U	280	U	6	6
Xylene (total)	6	U	6	U	5	U	5	U	5	U	6	U	6	U	270	U	280	U	280	U	280	U	6	6
1 Hexanol, 2 Ethyl	6	U	6	U	5	U	5	U	5	U	6	U	6	U	270	U	280	U	280	U	280	U	6	6

Table 6-1 Project 316-5 Process Trench Expedited Response Action
Semivolatile Analyses
Case # 09-130, 09025, 9109L603, 08-047, 9108L329

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Analytical Case # 09-130, 09025, 9109L603.

Semivolatile Compound	CRQL	B01016 Result	Q	B01018 Result	Q	B01019 Result	Q	B01020DL Result	Q	B01022DL Result	Q	B01023 Result	Q	B01021 Result	Q	B01021MS Result	Q	
Phenol	330	NR		NR		NR		NR		NR		NR		NR		NR		
Aniline		NR		NR		NR		NR		NR		NR		NR		NR		
bis(2-Chloroethyl)ether	330	NR		NR		NR		NR		NR		NR		NR		NR		
2-Chlorophenol	330	NR		NR		NR		NR		NR		NR		NR		NR		
1,3-Dichlorobenzene	330	NR		NR		NR		NR		NR		NR		NR		NR		
1,4-Dichlorobenzene	330	NR		NR		NR		NR		NR		NR		NR		NR		
Benzyl Alcohol		NR		NR		NR		NR		NR		NR		NR		NR		
1,2-Dichlorobenzene	330	NR		NR		NR		NR		NR		NR		NR		NR		
2-Methyphenol	330	NR		NR		NR		NR		NR		NR		NR		NR		
bis 2-Chloroisopropyl ether	330	NR		NR		NR		NR		NR		NR		560	UJ	550		
4-Methyphenol	330	NR		NR		NR		NR		NR		NR		560	UJ	NR		
N-Nitroso-di-n-propylamine	330	NR		NR		NR		NR		NR		NR		NR		NR		
Hexachloroethane	330	NR		NR		NR		NR		NR		NR		NR		NR		
Nitrobenzene	330	NR		NR		NR		NR		NR		NR		NR		NR		
Isophorone	330	NR		NR		NR		NR		NR		NR		NR		NR		
2-Nitrophenol	330	NR		NR		NR		NR		NR		NR		NR		NR		
2,4-Dimethylphenol	330	NR		NR		NR		NR		NR		NR		NR		NR		
Benzoic acid	1700	NR		NR		NR		NR		NR		NR		110	J	120	J	
bis(2-Chloroethoxy)methane	330	NR		NR		NR		NR		NR		NR		NR		NR		
2,4-Dichlorophenol	330	NR		NR		NR		NR		NR		NR		NR		NR		
1,2,4-Trichlorobenzene	330	NR		NR		NR		NR		NR		NR		NR		NR		
Naphthalene	330	NR		UJ		NR		NR		NR		190		J				
4-Chloroaniline	330	360	UJ		NR		NR		NR		NR		NR		NR		NR	
Hexachlorobutadiene	330	NR		NR		NR		NR		NR		NR		NR		NR		
4-Chloro-3-methylphenol	330	NR		NR		NR		NR		NR		350	J	NR		66	J	
2-Methylnaphthalene	330	NR		NR		NR		NR		NR		NR		NR		NR		
Hexachlorocyclopentadiene	330	360	UJ		NR		NR		NR		NR		NR		NR		NR	
2,4,6-Trichlorophenol	330	NR		NR		NR		NR		NR		NR		NR		NR		
2,4,5-Trichlorophenol	1700	NR		NR		NR		NR		NR		NR		NR		NR		
2-Choronaphthalene	330	NR		NR		NR		NR		NR		NR		NR		NR		
2-Nitroaniline	1700	NR		NR		NR		NR		NR		NR		NR		NR		
Dimethylphthalate	330	NR		NR		NR		NR		NR		NR		NR		NR		
Acenaphthylene	330	NR		NR		NR		NR		NR		NR		NR		NR		
3-Nitroaniline	1700	NR		NR		2900	UJ	2600	UJ	28000	UJ	NR		2800	UJ	NR		
Acenaphthene	330	NR		NR		NR		NR		850	J	NR		2800	UJ	2700	UJ	
2,4-Dinitrophenol	1700	1800	UJ	NR		2900	UJ	26000	UJ	26000	UJ	NR		2800	UJ	NR		
4-Nitrophenol	1700	NR		NR		2900	UJ	26000	UJ	500	J	47		NR		NR		
Dibenzofuran	330	NR		NR		NR		NR		NR		NR		NR		NR		
2,4-Dinitrotoluene	330	NR		NR		590	UJ	5300	UJ	5300	UJ	NR		NR		NR		
2,6-Dinitrotoluene	330	NR		NR		590	U	NR		NR		NR		NR		NR		
Diethylphthalate	330	NR		NR		NR		NR		NR		NR		NR		NR		
4-Chlorophenyl-phenyl ether	330	NR		NR		NR		NR		850	J	NR		NR		NR		
Fluorene	330	NR		NR		NR		NR		NR		2200	UJ	2800	UJ	120	J	
4-Nitroaniline	1700	NR		NR		2900	UJ	26000	UJ	NR		NR		2800	UJ	2700	UJ	
4,6-Dinitro-2-methylphenol	1700	NR		NR		NR		NR		NR		NR		2800	UJ	NR		
N-Nitrosodiphenylamine	330	NR		NR		NR		NR		NR		NR		560	UJ	NR		
4-Bromophenyl-phenylether	330	NR		NR		NR		NR		NR		NR		560	UJ	NR		
Hexachlorobenzene	330	NR		NR		NR		NR		NR		NR		560	UJ	NR		
Pentachlorophenol	1700	NR		NR		NR		NR		NR		NR		2800	UJ	NR		
Phenanthrene	330	NR		NR		NR		NR		3900	J	140	J	370	J	710	J	
Anthracene	330	NR		NR		NR		NR		1200	J	32	J	93	J	110	J	
Di-n-butylphthalate	330	600	U	NR		590	J	5300	U	5300	J	450	J	5100	J	3200	J	
Fluoranthene	330	NR		NR		37	J	NR		2800	J	88	J	950	J	540	J	
Pyrene	330	NR		NR		NR		NR		3200	J	170	J	290	J	NR		
Butylbenzylphthalate	330	NR		NR		NR		NR		NR		450	J	79	J	NR		
3,3'-Dichlorobenzidine	330	NR		NR		1200	UJ	11000	UJ	900	J	1100	J	780	J	250	J	
Benz(a)anthracene	330	NR		NR		NR		NR		1400	J	110	J	280	J	250	J	
Chrysene	330	NR		NR		590	U	5300	U	1900	J	NR		560	UJ	NR		
bis(2-Ethylhexyl)phthalate	330	360	U	NR		NR		NR		5300	J	2700	B?	1400	J	780	J	
Di-n-octylphthalate	330	NR		NR		NR		NR		NR		NR		560	UJ	NR		
Benz(b)fluoranthene	330	NR		NR		NR		NR		NR		NR		110	J	190	J	
Benz(k)fluoranthene	330	NR		NR		NR		NR		NR		NR		180	J	180	J	
Benz(a)pyrene	330	NR		NR		NR		NR		1400	J	NR		220	J	220	J	
Indeno[1,2,3-cd]pyrene	330	NR		NR		NR		NR		NR		NR		160	UJ	140	J	
Dibenzo(a,g)anthracene	330	NR		NR		NR		NR		NR		NR		560	J	NR		
Benz(g,h,i)perylene	330	NR		NR		NR		NR		NR		NR		170	J	130	J	

Notes: Only those compounds where qualifiers have been assigned or modified during data validation are reported

NR Not originally reported as present at concentrations greater than the CRQL by the laboratory

Table 6-1 Project 316-5 Process Trench Expedited Response Action 0 | 1 | 3 | 6 | 2
Semivolatile Analyses

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Table 8-1 316-5 Process Trench Expedited Response Action
TCLP Herbicide Analyses
Case # 9108L329

Chemical Analyte	Result (ug/L)	Q
Pyridine	100	U
1,4-Dichlorobenzene	100	U
2-Methylphenol	100	U
3- and/or 4-methylphenol	100	U
Hexachloroethane	100	U
Nitrobenzene	100	U
2,4-Dinitrotoluene	100	U
2,4,6-Trichlorophenol	100	U
2,4,5-Trichlorophenol	500	U
hexachlorobutadiene	100	U
Hexachlorobenzene	100	U
Pentachlorophenol	500	U